

IN THE CLAIMS:

Please cancel claims 2, 9, 16, 22, add new claims 28-31, and amend the remaining claims as follows:

1. (Currently Amended) A method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:

encoding said distribution tree to produce an encoded distribution tree;

creating a header including said encoded distribution tree; ~~and~~

adding said header to a data packet to be distributed to said distribution tree,

wherein said nodes in said distribution tree lack group state information; and

modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.

2. (Cancelled).

3. (Original) The method in claim 1, further comprising decoding a portion of said encoded distribution tree as a node receives said data packet and re-encoding said encoded distribution tree as said node passes said data packet to another node down said distribution tree.

4. (Original) The method in claim 1, wherein said distribution tree controls the order in which said nodes receive said data packets.

5. (Original) The method in claim 4, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt.

6. (Original) The method in claim 1, further comprising, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes.

7. (Original) The method in claim 1, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree.

8. (Currently Amended) A method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:

encoding said distribution tree to produce an encoded distribution tree;

creating a header including said encoded distribution tree; ~~and~~

adding said header to a data packet to be distributed to said distribution tree,
wherein said nodes in said distribution tree lack group state information;
processing said encoded distribution tree at each node of said nodes, thereby
indicating to which node of said nodes said data packet should be next transferred; and
modifying said header as said data packet is distributed down said distribution tree
to remove encoded information concerning upper distribution levels of said distribution
tree.

9. (Cancelled).

10. (Original) The method in claim 8, further comprising decoding a portion of said encoded distribution tree as a node receives said data packet and re-encoding said encoded distribution tree as said node passes said data packet to another node down said distribution tree.

11. (Original) The method in claim 8, wherein said distribution tree controls the order in which said nodes receive said data packets.

12. (Original) The method in claim 11, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt.

13. (Original) The method in claim 8, further comprising, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes.

14. (Original) The method in claim 8, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree.

15. (Currently Amended) A method of stateless group communication of data packets to nodes in a distribution tree, said method comprising:

encoding said distribution tree to produce an encoded distribution tree;

creating a header including said encoded distribution tree; and

adding said header to a data packet to be distributed to said distribution tree,

wherein said nodes in said distribution tree lack group state information;

decoding a portion of said encoded distribution tree as a node of said nodes receives said data packet; and

re-encoding said encoded distribution tree as said node passes said data packet to another node of said nodes down said distribution tree,

wherein said decoding and said re-encoding modify said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.

16. (Cancelled).

17. (Original) The method in claim 15, wherein said distribution tree controls the order in which said nodes receive said data packets.

18. (Original) The method in claim 17, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt.

19. (Original) The method in claim 15, further comprising, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes.

20. (Original) The method in claim 15, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree.

21. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of establishing transmission headers for stateless group communication of data packets to nodes in a distribution tree, said method comprising:

encoding said distribution tree to produce an encoded distribution tree;

creating a header including said encoded distribution tree;~~and~~

adding said header to a data packet to be distributed to said distribution tree,

wherein said nodes in said distribution tree lack group state information; and

modifying said header as said data packet is distributed down said distribution tree to remove encoded information concerning upper distribution levels of said distribution tree.

22. (Cancelled).

23. (Original) The program storage device in claim 21, wherein said method further comprises decoding a portion of said encoded distribution tree as a node receives said data packet and re-encoding said encoded distribution tree as said node passes said data packet to another node down said distribution tree.

24. (Original) The program storage device in claim 21, wherein said distribution tree controls the order in which said nodes receive said data packets.

25. (Original) The program storage device in claim 24, wherein by controlling the order in which said nodes receive said data packets, said encoded distribution tree permits said nodes to process said data packets upon receipt.

26. (Original) The program storage device in claim 21, wherein said method further comprises, prior to said encoding process, creating said distribution tree at a sender node based upon a dynamic group of receiver nodes.

27. (Original) The program storage device in claim 21, wherein said encoding comprises sequentially entering addresses of nodes during a per-level traversal of said distribution tree starting from the root of said distribution tree.

28. (New) The method in claim 1, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees.

29. (New) The method in claim 8, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees.

30. (New) The method in claim 15, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees.

31. (New) The program storage device in claim 21, wherein said lack of said group state information reduces a signaling of a control path and adds flexibility of dynamic modification of said communication trees.